CLAIMS

WHAT IS CLAIMED IS:

1. A nutritionally superior cheese product comprising at least a first discrete phase and a second discrete phase, wherein the first discrete phase comprises a cheese phase and the second discrete phase comprises a second edible phase, wherein the cheese product is prepared by co-extruding the cheese phase and the second edible phase without the use of adhesive or heat to bind the cheese phase and the second edible phase together to form the nutritionally superior cheese product.

2. The nutritionally superior cheese product as defined in claim 1, wherein the first discrete phase consists essentially of the cheese phase and the second discrete phase consists essentially of the second edible phase.

3. The nutritionally superior cheese product as defined in claim 2, the cheese phase has a temperature of about 45 to about 70°F, a water activity of about 0.85 to about 0.95, and pH of about 4.5 to about 6 during co-extrusion and wherein the second edible phase has a water activity of about 0.85 to about 0.95, and pH of about 4.5 to about 6 during co-extrusion.

4. The nutritionally superior cheese product as defined in claim 3, wherein the water activity of the second edible phases is within about 0.02 units of the water activity of the cheese phase and the pH of the second edible phase is within about 0.2 units of the pH of the cheese phase.

5. The nutritionally superior cheese product as defined in claim 2, wherein at least one of the first or second discrete phases contains a nutritional supplement.

6. The nutritionally superior cheese product as defined in claim 3, wherein at least one of the first or second discrete phases contains a nutritional supplement.

7. The nutritionally superior cheese product as defined in claim 2, wherein second edible phase is selected from the group consisting of vegetables, meats, mixtures of vegetables and meats, fruits, and nuts.

8. The nutritionally superior cheese product as defined in claim 3, wherein second edible phase is selected from the group consisting of vegetables, meats, mixtures of vegetables and meats, fruits, and nuts.

9. The nutritionally superior cheese product as defined in claim 4, wherein second edible phase is selected from the group consisting of vegetables, meats, mixtures of vegetables and meats, fruits, and nuts.

10. The nutritionally superior cheese product as defined in claim 2, wherein the cheese phase and the second edible phase are co-extruded using a moderate shear extruder.

11. The nutritionally superior cheese product as defined in claim 3, wherein the cheese phase and the second edible phase are co-extruded using a moderate shear extruder.

12. The nutritionally superior cheese product as defined in claim 4, wherein the cheese phase and the second edible phase are co-extruded using a moderate shear extruder.

13. The nutritionally superior cheese product as defined in claim 10, wherein the second edible phase is pasteurized and then cooled prior to co-extrusion.

14. The nutritionally superior cheese product as defined in claim 11, wherein the second edible phase is pasteurized and then cooled prior to co-extrusion.

15. The nutritionally superior cheese product as defined in claim 12, wherein the second edible phase is pasteurized and then cooled prior to co-extrusion.

16. A method for producing a nutritionally superior cheese product having at least a first discrete phase and a second discrete phase, wherein the first discrete phase comprises a cheese phase and the second discrete phase comprises a second edible phase, said method comprising:

(1) providing a cheese phase in the form of cheese chucks or cheese shreds at a temperature of about 45 to about 70°F, wherein the cheese phase has a water activity of about 0.85 to about 0.95 and pH of about 4.5 to about 6;

(2) providing a second edible phase having a water activity of about 0.85 to about 0.95 and pH of about 4.5 to about 6;

(3) co-extruding the cheese phase and second edible phase under low to moderate shear conditions without the use of adhesive or heat to bind the cheese phase and the second edible phase together as discrete phases to form a nutritionally superior cheese extruded product; and

(4) cutting the nutritionally superior cheese extruded product to the desired length to form the nutritionally superior cheese product.

17. The method as defined in claim 16, wherein the first discrete phase consists essentially of the cheese phase and the second discrete phase consists essentially of the second edible phase.

18. The method as defined in claim 17, wherein the water activity of the second edible phase is within about 0.02 units of the water activity of the cheese phase and the pH of the second edible phase is within about 0.2 units of the pH of the cheese phase.

19. The method as defined in claim 17, wherein at least one of the first and second discrete phases contains a nutritional supplement.

20. The method as defined in claim 18, wherein at least one of the first and second discrete phases contains a nutritional supplement.

21. The method as defined in claim 17, wherein second edible phase is selected from the group consisting of vegetables, meats, mixtures of vegetables and meats, fruits, and nuts.

22. The method as defined in claim 18, wherein second edible phase is selected from the group consisting of vegetables, meats, mixtures of vegetables and meats, fruits, and nuts.

23. The method as defined in claim 20, wherein second edible phase is selected from the group consisting of vegetables, meats, mixtures of vegetables and meats, fruits, and nuts.

24. The method as defined in claim 17, wherein the second edible phase is pasteurized and then cooled prior to co-extrusion.

25. The method as defined in claim 18, wherein the second edible phase is pasteurized and then cooled prior to co-extrusion.

26. The method as defined in claim 20, wherein the second edible phase is pasteurized and then cooled prior to co-extrusion.

27. The method as defined in claim 21, wherein the second edible phase is pasteurized and then cooled prior to co-extrusion.

28. The method as defined in claim 22, wherein the second edible phase is pasteurized and then cooled prior to co-extrusion.

29. The method as defined in claim 23, wherein the second edible phase is pasteurized and then cooled prior to co-extrusion.